Pacific Ethanol Magic Valley, LLC
Fugitive Dust Emissions from Truck Traffic, FS01

E= [k * (sL/2)^0.65 * (W/3)^1.5 - C](1-(P/4N)) AP-42, Section 13.2.2-1

Factor	Description	Source	PM Value	PM_{10} Value	$PM_{2.5}$ Value
E =	Emission factor (lb/VMT)	Calculation, above	1.06	0.21	0.03
k =	PM Particle size multiplier (lb/VMT)	AP-42, Section 13.2.1	0.082	0.016	0.0024
sL =	Road surface silt loading (g/m^2)	AP-42, Section 13.2.1-2	0.60	0.60	0.60
C =	Vehicle exhaust emission factor		0.0005	0.0005	0.0004
P =	Number of "wet" days in an averaging period		90	90	90
N =	Number of days in an averaging period		365	365	365
W =	Mean vehicle weight (ton)		29.00	29.00	29.0

PM Emissions from Paved Roads

Activity	Quantity Transported per truck	No. of Trucks (truck/yr)	Miles Traveled per Truck (miles/truck)	Annual Mileage (VMT/yr)	Uncontrolled PM Emissions (lb/yr)	Uncontrolled PM Emissions (tpy)
Grain receiving	25 ton	25,169	0.50	12,584	13,306	6.65
Wet Cake haul out	25 ton	24,579	0.50	12,289	12,994	6.50
Ethanol haul out	8,000 gal	7,875	0.32	2,520	2,665	1.33
Denaturant delivery	8,000 gal	375	0.32	120	127	0.06
Grain Loadout	25 ton	21,900	0.50	10,950	11,578	5.79
Total						**20.33**

PM_{10} Emissions from Paved Roads

Activity	Quantity Transported per truck	No. of Trucks (truck/yr)	Miles Traveled per Truck (miles/truck)	Annual Mileage (VMT/yr)	Uncontrolled PM_{10} Emissions (lb/yr)	Uncontrolled PM_{10} Emissions (tpy)
Grain receiving	25 ton	25,169	0.50	12,584	2,596	1.30
Wet Cake haul out	25 ton	24,579	0.50	12,289	2,535	1.27
Ethanol haul out	8,000 gal	7,875	0.32	2,520	520	0.26
Denaturant delivery	8,000 gal	375	0.32	120	25	0.01
Grain Loadout	25 ton	21,900	0.50	10,950	2,259	1.13
Total						**3.97**

$PM_{2.5}$ Emissions from Paved Roads

Activity	Quantity Transported per truck	No. of Trucks (truck/yr)	Miles Traveled per Truck (miles/truck)	Annual Mileage (VMT/yr)	Uncontrolled $PM_{2.5}$ Emissions (lb/yr)	Uncontrolled $PM_{2.5}$ Emissions (tpy)
Grain receiving	25 ton	25,169	0.50	12,584	389	0.19
Wet Cake haul out	25 ton	24,579	0.50	12,289	380	0.19
Ethanol haul out	8,000 gal	7,875	0.32	2,520	78	0.04
Denaturant delivery	8,000 gal	375	0.32	120	4	0.00
Grain Loadout	25 ton	21,900	0.50	10,950	339	0.17
Total						**0.60**

Pacific Ethanol Magic Valley, LLC
Wetcake Storage Emissions, FS03

Wetcake emissions based on November 2, 2004 test data from a wetcake storage building at DENCO, LLC in Morris, MN.

Normal Operating Scenario

Production Rates:

18 tons/hr wetcake (wet basis) production @ DENCO

70.1 tons/hr wetcake (wet basis) production @ Pacific Ethanol Magic Valley, LLC (Max)

DENCO Test Results* -> Emission Factor -> Magic Valley Estimated Emissions

Detection?**	Pollutant	DENCO lb/hr @ 18 ton/hr production rate	Emission Factor (lb/ton wetcake)	Potential Estimated Emissions (lb/hr)	Potential Estimated Emissions (tpy)
non-detect	Acetaldehyde	0.001	5.56E-05	5.85E-03	2.56E-02
non-detect	Acrolein	0.00017	9.17E-06	9.64E-04	4.22E-03
	Acetic Acid	0.08	4.44E-03	4.68E-01	2.05E+00
	Ethanol	0.02	1.11E-03	1.17E-01	5.12E-01
non-detect	Formaldehyde	0.002	1.11E-04	1.17E-02	5.12E-02
non-detect	Formic Acid	---	---	---	---
non-detect	2-furaldehyde	---	---	---	---
non-detect	Methanol	0.00125	6.94E-05	7.31E-03	3.20E-02
VOC Total				0.610	**2.67**
HAPs Total				0.026	**0.11**

*Emission estimates based on November 2, 2004 emission testing at wetcake storage building at

**1/2 the detection limit used as emission estimate for non-detect results.

Pacific Ethanol Magic Valley, LLC
Equipment Leak VOC Emissions, FS04

Process Stream	Equipment Component Source	Product	Component Count*	Emission Factor *** (lb/comp.-hr)	Uncontrolled Rate**** (lb/hr)	LDAR Control Effectiveness	Controlled Rate (lb/hr)	TOC weight** (%)	VOC Emissions (lb/hr)	VOC Emissions (tpy)
Fermentation	Valves	Gas/Vapor	0.0	0.01316	0.00	87%	0.00	13.00%	0.00	0.00
	Valves	Gas/Vapor	90.0	0.00888	0.80	84%	0.13	13.00%	0.02	0.07
	Pumps	Light Liquid	6.0	0.04387	0.26	69%	0.08	13.00%	0.01	0.05
	Compressor Seals	Gas/Vapor	0.0	0.50265	0.00	75%	0.00	13.00%	0.00	0.00
	Pressure-Relief Valves	Gas/Vapor	5.0	0.22928	1.15	95%	0.06	13.00%	0.01	0.03
	Sampling Connections	All	0.0	0.03307	0.00	87%	0.00	13.00%	0.00	0.00
	Open-ended Lines	All	5.0	0.00376	0.02	84%	0.00	13.00%	0.00	0.00
	Flanges (connectors)	All	166.0	0.00403	0.67	84%	0.11	13.00%	0.01	0.06
Distillation	Valves	Gas/Vapor	45.0	0.01316	0.59	87%	0.08	81.70%	0.06	0.28
	Valves	Light Liquid	22.0	0.00888	0.20	84%	0.03	87.10%	0.03	0.12
	Pumps	Light Liquid	7.0	0.04387	0.31	69%	0.10	81.70%	0.08	0.34
	Compressor Seals	Gas/Vapor	0.0	0.50265	0.00	75%	0.00	81.70%	0.00	0.00
	Pressure-Relief Valves	Gas/Vapor	7.0	0.22928	1.60	95%	0.08	81.70%	0.07	0.29
	Sampling Connections	All	0.0	0.03307	0.00	87%	0.00	81.70%	0.00	0.00
	Open-ended Lines	All	15.0	0.00376	0.06	84%	0.01	81.70%	0.01	0.03
	Flanges (connectors)	All	190.0	0.00403	0.77	84%	0.12	81.70%	0.10	0.44
Tank Farm	Valves	Gas/Vapor	0.0	0.01316	0.00	87%	0.00	100.00%	0.00	0.00
	Valves	Light Liquid	70.0	0.00888	0.62	84%	0.10	100.00%	0.10	0.44
	Pumps	Light Liquid	5.0	0.04387	0.22	69%	0.07	100.00%	0.07	0.30
	Compressor Seals	Gas/Vapor	0.0	0.50265	0.00	75%	0.00	100.00%	0.00	0.00
	Pressure-Relief Valves	Gas/Vapor	5.0	0.22928	1.15	95%	0.06	100.00%	0.06	0.25
	Sampling Connections	All	0.0	0.03307	0.00	87%	0.00	100.00%	0.00	0.00
	Open-ended Lines	All	6.0	0.00376	0.02	84%	0.00	100.00%	0.00	0.02
	Flanges (connectors)	All	110.0	0.00403	0.44	84%	0.07	100.00%	0.07	0.31
Total			**754.0**		**8.87**		**1.09**		**0.69**	**3.02**

*Component counts are based on Subpart VV equipment inventory from Delta T.

**TOC is considered to be worst case for each process stream identified.

***Emission factors taken from Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017. Table 2-1 and Table 5-2.

****Emission rate is taken from Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017, and based on the Leak Detection and Repair Program.

HAP Emission Calculation

Pollutant	Fraction	Emissions (tpy)
Acetaldehyde	2.00E-04	6.04E-04
Methanol	2.00E-04	6.04E-04
Benzene	2.50E-03	7.55E-03
Carbon Disulfide	2.00E-05	6.04E-05
Cumene	1.00E-03	3.02E-03
Ethylbenzene	5.00E-05	1.51E-04
n-Hexane	5.00E-02	1.51E-01
Toluene	5.00E-03	1.51E-02
Xylenes	5.00E-04	1.51E-03
Total		**0.18**

Pacific Ethanol Magic Valley, LLC
Cooling Tower Emissions, FS05

Cooling tower PM emissions are based on an induced draft cooling tower with a circulating water flow rate of 15,000 gallons per minute (gpm) and a conservative drift (0.005% of the circulating water flow). Calculations assume a total dissolved solids concentration of 2,000 ppm.

Circulating Flow Rate (gallons/minute)	Circulating Flow Rate (gallons/hour)	Total Drift (% circulating flow)	Total Drift (gal/hr)	Total Drift (lb/hr)	PM/PM_{10} Emissions (lb/day)	$PM/PM_{10}/PM_{2.5}$ Emissions (lb/yr)	$PM/PM_{10}/PM_{2.5}$ Emissions (tpy)
15,000	900,000	0.005%	45.00	360.00	18.01	**6,575**	**3.29**
Density of Cooling Water =		8.34	lb/gal				
TDS =		2,000	ppm				

Production Throughputs for Pacific Ethanol Magic Valley, LLC

Undenatured ethanol throughput:	60	MMgal/yr	(proposed limit)
Denaturant throughput:	3.000	MMgal/yr	(assuming 5% by volume of ethanol produced which is 4% by weight)
Denatured ethanol (fuel) throughput:	63.00	MMgal/yr	(denatured ethanol)

Corn Processed:	22.5	MMBu/yr
	629213	tpy
	71.8	ton/hr

Assuming 2.67 gal EtOH per bushel of corn and 56 lb/Bu

Maximum Wetcake Produced		
	196629	tpy DDGS
	22.4	ton/hr DDGS
	70.1	ton/hr Wetcake

Assuming 17.5 lb DDGS per bushel of corn and wetcake contains 32% DDGS solids

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	PAC - Burley- TK01
City:	Burley
State:	Idaho
Company:	Pacific Ethanol Magic Valley, LLC
Type of Tank:	Internal Floating Roof Tank
Description:	Off-spec Tank

Tank Dimensions

Diameter (ft):	25.00
Volume (gallons):	174,500.00
Turnovers:	3.44
Self Supp. Roof? (y/n):	N
No. of Columns:	1.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Liquid-mounted
Secondary Seal	None

Deck Characteristics

Deck Fitting Category:	Detail
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1
Roof Leg or Hanger Well/Adjustable	9
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

PAC - Burley- TK01 - Internal Floating Roof Tank
Burley, Idaho

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Ethyl alcohol	All	48.21	41.93	54.49	46.37	0.4341	N/A	N/A	46.0700			46.07	Option 2: A=8.321, B=1718.21, C=237.52

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

PAC - Burley- TK01 - Internal Floating Roof Tank
Burley, Idaho

Annual Emission Calcaulations	
Rim Seal Losses (lb):	16.2476
Seal Factor A (lb-mole/ft-yr):	1.6000
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.3000
Value of Vapor Pressure Function:	0.0088
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4341
Tank Diameter (ft):	25.0000
Vapor Molecular Weight (lb/lb-mole):	46.0700
Product Factor:	1.0000
Withdrawal Losses (lb):	5.5565
Number of Columns:	1.0000
Effective Column Diameter (ft):	1.0000
Annual Net Throughput (gal/yr.):	600,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	6.6100
Tank Diameter (ft):	25.0000
Deck Fitting Losses (lb):	86.7624
Value of Vapor Pressure Function:	0.0088
Vapor Molecular Weight (lb/lb-mole):	46.0700
Product Factor:	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	213.6000
Deck Seam Losses (lb):	0.0000
Deck Seam Length (ft):	0.0000
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.0000
Deck Seam Length Factor(ft/sqft):	0.0000
Tank Diameter (ft):	25.0000
Vapor Molecular Weight (lb/lb-mole):	46.0700
Product Factor:	1.0000
Total Losses (lb):	108.5665

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors KFa(lb-mole/yr)	KFb(lb-mole/(yr mph^n))	m	Losses(lb)
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1	31.00	5.20	1.30	12.5919
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38	1.7466
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1	33.00	0.00	0.00	13.4043
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1	56.00	0.00	0.00	22.7467
Roof Leg or Hanger Well/Adjustable	9	7.90	0.00	0.00	28.8802
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00	0.00	0.00	4.8743
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	2.5184

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

PAC - Burley- TK01 - Internal Floating Roof Tank
Burley, Idaho

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Ethyl alcohol	16.25	5.56	86.76	0.00	108.57

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	PAC - Burley- TK02
City:	Burley
State:	Idaho
Company:	Pacific Ethanol Magic Valley, LLC
Type of Tank:	Internal Floating Roof Tank
Description:	Denaturant Storage Tank

Tank Dimensions

Diameter (ft):	20.42
Volume (gallons):	58,750.00
Turnovers:	51.06
Self Supp. Roof? (y/n):	N
No. of Columns:	1.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Liquid-mounted
Secondary Seal	None

Deck Characteristics

Deck Fitting Category:	Detail
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1
Roof Leg or Hanger Well/Adjustable	8
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

PAC - Burley- TK02 - Internal Floating Roof Tank
Burley, Idaho

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 10)	All	48.21	41.93	54.49	46.37	4.1037	N/A	N/A	66.0000			92.00	Option 4: RVP=10, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

PAC - Burley- TK02 - Internal Floating Roof Tank
Burley, Idaho

Annual Emission Calcaulations	
Rim Seal Losses (lb):	213.2354
Seal Factor A (lb-mole/ft-yr):	1.6000
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.3000
Value of Vapor Pressure Function:	0.0989
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	4.1037
Tank Diameter (ft):	20.4200
Vapor Molecular Weight (lb/lb-mole):	66.0000
Product Factor:	1.0000
Withdrawal Losses (lb):	29.0650
Number of Columns:	1.0000
Effective Column Diameter (ft):	1.0000
Annual Net Throughput (gal/yr.):	3,000,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	5.6000
Tank Diameter (ft):	20.4200
Deck Fitting Losses (lb):	1,342.5108
Value of Vapor Pressure Function:	0.0989
Vapor Molecular Weight (lb/lb-mole):	66.0000
Product Factor:	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	205.7000
Deck Seam Losses (lb):	0.0000
Deck Seam Length (ft):	0.0000
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.0000
Deck Seam Length Factor(ft/sqft):	0.0000
Tank Diameter (ft):	20.4200
Vapor Molecular Weight (lb/lb-mole):	66.0000
Product Factor:	1.0000
Total Losses (lb):	1,584.8112

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors KFa(lb-mole/yr)	KFb(lb-mole/(yr mph^n))	m	Losses(lb)
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1	31.00	5.20	1.30	202.3230
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38	28.0642
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1	33.00	0.00	0.00	215.3761
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1	56.00	0.00	0.00	365.4866
Roof Leg or Hanger Well/Adjustable	8	7.90	0.00	0.00	412.4778
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00	0.00	0.00	78.3186
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	40.4646

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

PAC - Burley- TK02 - Internal Floating Roof Tank
Burley, Idaho

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 10)	213.24	29.07	1,342.51	0.00	1,584.81

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	PAC - Burley- TK03
City:	Burley
State:	Idaho
Company:	Pacific Ethanol Magic Valey, LLC
Type of Tank:	Internal Floating Roof Tank
Description:	200 Proof Storage Tank

Tank Dimensions

Diameter (ft):	25.00
Volume (gallons):	174,500.00
Turnovers:	171.92
Self Supp. Roof? (y/n):	N
No. of Columns:	1.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Liquid-mounted
Secondary Seal	None

Deck Characteristics

Deck Fitting Category:	Detail
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1
Roof Leg or Hanger Well/Adjustable	9
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

PAC - Burley- TK03 - Internal Floating Roof Tank
Burley, Idaho

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Ethyl alcohol	All	48.21	41.93	54.49	46.37	0.4341	N/A	N/A	46.0700			46.07	Option 2: A=8.321, B=1718.21, C=237.52

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

PAC - Burley- TK03 - Internal Floating Roof Tank
Burley, Idaho

Annual Emission Calcaulations	
Rim Seal Losses (lb):	16.2476
Seal Factor A (lb-mole/ft-yr):	1.6000
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.3000
Value of Vapor Pressure Function:	0.0088
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4341
Tank Diameter (ft):	25.0000
Vapor Molecular Weight (lb/lb-mole):	46.0700
Product Factor:	1.0000
Withdrawal Losses (lb):	277.8240
Number of Columns:	1.0000
Effective Column Diameter (ft):	1.0000
Annual Net Throughput (gal/yr.):	30,000,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	6.6100
Tank Diameter (ft):	25.0000
Deck Fitting Losses (lb):	86.7624
Value of Vapor Pressure Function:	0.0088
Vapor Molecular Weight (lb/lb-mole):	46.0700
Product Factor:	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	213.6000
Deck Seam Losses (lb):	0.0000
Deck Seam Length (ft):	0.0000
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.0000
Deck Seam Length Factor(ft/sqft):	0.0000
Tank Diameter (ft):	25.0000
Vapor Molecular Weight (lb/lb-mole):	46.0700
Product Factor:	1.0000
Total Losses (lb):	380.8340

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors KFa(lb-mole/yr)	KFb(lb-mole/(yr mph^n))	m	Losses(lb)
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1	31.00	5.20	1.30	12.5919
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38	1.7466
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1	33.00	0.00	0.00	13.4043
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1	56.00	0.00	0.00	22.7467
Roof Leg or Hanger Well/Adjustable	9	7.90	0.00	0.00	28.8802
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00	0.00	0.00	4.8743
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	2.5184

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

PAC - Burley- TK03 - Internal Floating Roof Tank
Burley, Idaho

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Ethyl alcohol	16.25	277.82	86.76	0.00	380.83

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	PAC - Burley- TK04
City:	Burley
State:	Idaho
Company:	Pacific Ethanol Magic Valley, LLC
Type of Tank:	Internal Floating Roof Tank
Description:	200 Proof Storage Tank

Tank Dimensions

Diameter (ft):	25.00
Volume (gallons):	174,500.00
Turnovers:	171.92
Self Supp. Roof? (y/n):	N
No. of Columns:	1.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Liquid-mounted
Secondary Seal	None

Deck Characteristics

Deck Fitting Category:	Detail
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1
Roof Leg or Hanger Well/Adjustable	9
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

PAC - Burley- TK04 - Internal Floating Roof Tank
Burley, Idaho

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Ethyl alcohol	All	48.21	41.93	54.49	46.37	0.4341	N/A	N/A	46.0700			46.07	Option 2: A=8.321, B=1718.21, C=237.52

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

PAC - Burley- TK04 - Internal Floating Roof Tank
Burley, Idaho

Annual Emission Calcaulations	
Rim Seal Losses (lb):	16.2476
Seal Factor A (lb-mole/ft-yr):	1.6000
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.3000
Value of Vapor Pressure Function:	0.0088
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4341
Tank Diameter (ft):	25.0000
Vapor Molecular Weight (lb/lb-mole):	46.0700
Product Factor:	1.0000
Withdrawal Losses (lb):	277.8240
Number of Columns:	1.0000
Effective Column Diameter (ft):	1.0000
Annual Net Throughput (gal/yr.):	30,000,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	6.6100
Tank Diameter (ft):	25.0000
Deck Fitting Losses (lb):	86.7624
Value of Vapor Pressure Function:	0.0088
Vapor Molecular Weight (lb/lb-mole):	46.0700
Product Factor:	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	213.6000
Deck Seam Losses (lb):	0.0000
Deck Seam Length (ft):	0.0000
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.0000
Deck Seam Length Factor(ft/sqft):	0.0000
Tank Diameter (ft):	25.0000
Vapor Molecular Weight (lb/lb-mole):	46.0700
Product Factor:	1.0000
Total Losses (lb):	380.8340

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors KFa(lb-mole/yr)	KFb(lb-mole/(yr mph^n))	m	Losses(lb)
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1	31.00	5.20	1.30	12.5919
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38	1.7466
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1	33.00	0.00	0.00	13.4043
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1	56.00	0.00	0.00	22.7467
Roof Leg or Hanger Well/Adjustable	9	7.90	0.00	0.00	28.8802
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00	0.00	0.00	4.8743
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	2.5184

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

PAC - Burley- TK04 - Internal Floating Roof Tank
Burley, Idaho

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Ethyl alcohol	16.25	277.82	86.76	0.00	380.83

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	PAC - Burley- TK05
City:	Burley
State:	Idaho
Company:	Pacific Ethanol Magic Valley, LLC
Type of Tank:	Internal Floating Roof Tank
Description:	Denatured Ethanol Storage Tank

Tank Dimensions

Diameter (ft):	40.00
Volume (gallons):	587,000.00
Turnovers:	53.66
Self Supp. Roof? (y/n):	N
No. of Columns:	1.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Liquid-mounted
Secondary Seal	None

Deck Characteristics

Deck Fitting Category:	Detail
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1
Roof Leg or Hanger Well/Adjustable	12
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

PAC - Burley- TK05 - Internal Floating Roof Tank
Burley, Idaho

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Denatured Ethanol	All	48.21	41.93	54.49	46.37	0.5284	N/A	N/A	50.0449			47.25	
Ethyl alcohol						0.4341	N/A	N/A	46.0700	0.9500	0.7370	46.07	Option 2: A=8.321, B=1718.21, C=237.52
Gasoline (RVP 10)						4.1037	N/A	N/A	66.0000	0.0500	0.2630	92.00	Option 4: RVP=10, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

PAC - Burley- TK05 - Internal Floating Roof Tank
Burley, Idaho

Annual Emission Calcaulations	
Rim Seal Losses (lb):	34.5019
Seal Factor A (lb-mole/ft-yr):	1.6000
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.3000
Value of Vapor Pressure Function:	0.0108
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.5284
Tank Diameter (ft):	40.0000
Vapor Molecular Weight (lb/lb-mole):	50.0449
Product Factor:	1.0000
Withdrawal Losses (lb):	178.0864
Number of Columns:	1.0000
Effective Column Diameter (ft):	1.0000
Annual Net Throughput (gal/yr.):	31,500,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	6.5509
Tank Diameter (ft):	40.0000
Deck Fitting Losses (lb):	127.9264
Value of Vapor Pressure Function:	0.0108
Vapor Molecular Weight (lb/lb-mole):	50.0449
Product Factor:	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	237.3000
Deck Seam Losses (lb):	0.0000
Deck Seam Length (ft):	0.0000
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.0000
Deck Seam Length Factor(ft/sqft):	0.0000
Tank Diameter (ft):	40.0000
Vapor Molecular Weight (lb/lb-mole):	50.0449
Product Factor:	1.0000
Total Losses (lb):	340.5147

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors KFa(lb-mole/yr)	KFb(lb-mole/(yr mph^n))	m	Losses(lb)
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1	31.00	5.20	1.30	16.7118
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38	2.3181
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1	33.00	0.00	0.00	17.7900
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1	56.00	0.00	0.00	30.1891
Roof Leg or Hanger Well/Adjustable	12	7.90	0.00	0.00	51.1059
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00	0.00	0.00	6.4691
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	3.3424

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

PAC - Burley- TK05 - Internal Floating Roof Tank
Burley, Idaho

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Denatured Ethanol	34.50	178.09	127.93	0.00	340.51
Ethyl alcohol	25.43	169.18	94.28	0.00	288.89
Gasoline (RVP 10)	9.07	8.90	33.65	0.00	51.63

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	PAC - Burley- TK06
City:	Burley
State:	Idaho
Company:	Pacific Ethanol Magic Valley, LLC
Type of Tank:	Internal Floating Roof Tank
Description:	Denatured Ethanol Storage Tank

Tank Dimensions

Diameter (ft):	40.00
Volume (gallons):	587,000.00
Turnovers:	53.66
Self Supp. Roof? (y/n):	N
No. of Columns:	1.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Liquid-mounted
Secondary Seal	None

Deck Characteristics

Deck Fitting Category:	Detail
Deck Type:	Welded

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1
Roof Leg or Hanger Well/Adjustable	12
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

PAC - Burley- TK06 - Internal Floating Roof Tank
Burley, Idaho

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Denatured Ethanol	All	48.21	41.93	54.49	46.37	0.5284	N/A	N/A	50.0449			47.25	
Ethyl alcohol						0.4341	N/A	N/A	46.0700	0.9500	0.7370	46.07	Option 2: A=8.321, B=1718.21, C=237.52
Gasoline (RVP 10)						4.1037	N/A	N/A	66.0000	0.0500	0.2630	92.00	Option 4: RVP=10, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

PAC - Burley- TK06 - Internal Floating Roof Tank
Burley, Idaho

Annual Emission Calcaulations	
Rim Seal Losses (lb):	34.5019
Seal Factor A (lb-mole/ft-yr):	1.6000
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.3000
Value of Vapor Pressure Function:	0.0108
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.5284
Tank Diameter (ft):	40.0000
Vapor Molecular Weight (lb/lb-mole):	50.0449
Product Factor:	1.0000
Withdrawal Losses (lb):	178.0864
Number of Columns:	1.0000
Effective Column Diameter (ft):	1.0000
Annual Net Throughput (gal/yr.):	31,500,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	6.5509
Tank Diameter (ft):	40.0000
Deck Fitting Losses (lb):	127.9264
Value of Vapor Pressure Function:	0.0108
Vapor Molecular Weight (lb/lb-mole):	50.0449
Product Factor:	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	237.3000
Deck Seam Losses (lb):	0.0000
Deck Seam Length (ft):	0.0000
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.0000
Deck Seam Length Factor(ft/sqft):	0.0000
Tank Diameter (ft):	40.0000
Vapor Molecular Weight (lb/lb-mole):	50.0449
Product Factor:	1.0000
Total Losses (lb):	340.5147

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors KFa(lb-mole/yr)	KFb(lb-mole/(yr mph^n))	m	Losses(lb)
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed	1	31.00	5.20	1.30	16.7118
Automatic Gauge Float Well/Unbolted Cover, Gasketed	1	4.30	17.00	0.38	2.3181
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1	33.00	0.00	0.00	17.7900
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1	56.00	0.00	0.00	30.1891
Roof Leg or Hanger Well/Adjustable	12	7.90	0.00	0.00	51.1059
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00	0.00	0.00	6.4691
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	3.3424

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

PAC - Burley- TK06 - Internal Floating Roof Tank
Burley, Idaho

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Denatured Ethanol	34.50	178.09	127.93	0.00	340.51
Ethyl alcohol	25.43	169.18	94.28	0.00	288.89
Gasoline (RVP 10)	9.07	8.90	33.65	0.00	51.63

Attachment C
IDEQ Forms

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
04/03/07

Please see instructions on page 2 before filling out the form.

DEQ USE ONLY
Date Received
Project Number
Payment / Fees Included? Yes ☐ No ☐
Check Number

COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER

1. Company Name	Pacific Ethanol Inc.		
2. Facility Name	Pacific Ethanol Magic Valley, LLC	3. Facility ID No.	031-00032
4. Brief Project Description - One sentence or less	Install Regenerative Thermal Oxider instead of RCO, vent gas scrubber venting to RTO, increased grain throughput		

PERMIT APPLICATION TYPE

5. ☐ New Facility ☐ New Source at Existing Facility ☐ Unpermitted Existing Source
☒ Modify Existing Source: Permit No.: P-2008.0025 Date Issued: 03/28/2008
☐ Required by Enforcement Action: Case No.:____

6. ☒ Minor PTC ☐ Major PTC

FORMS INCLUDED

Included	N/A	Forms	DEQ Verify
☐	☒	Form GI – Facility Information	☐
☐	☒	Form EU0 – Emissions Units General	☐
☐	☒	Form EU1 - Industrial Engine Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU2 - Nonmetallic Mineral Processing Plants Please Specify number of forms attached: _____	☐
☐	☒	Form EU3 - Spray Paint Booth Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU4 - Cooling Tower Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU5 – Boiler Information Please Specify number of forms attached: _____	☐
☐	☒	Form HMAP – Hot Mix Asphalt Plant Please Specify number of forms attached: _____	☐
☐	☒	Form CBP - Concrete Batch Plant Please Specify number of forms attached: _____	☐
☐	☒	Form BCE - Baghouses Control Equipment	☐
☐	☒	Form SCE - Scrubbers Control Equipment	☐
☒	☐	Forms EI-CP1 - EI-CP4 - Emissions Inventory– criteria pollutants (Excel workbook, all 4 worksheets)	☐
☐	☒	PP – Plot Plan	☐
☐	☒	Forms MI1 – MI4 – Modeling (Excel workbook, all 4 worksheets)	☐
☐	☒	Form FRA – Federal Regulation Applicability	☐

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline - 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION
Revision 3
4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Pacific Ethanol, Inc
Facility Name:	Pacific Ethanol Magic Valley, LLC
Facility ID No.:	031-00032
Brief Project Description:	Fuel Grade Ethanol Production

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - POINT SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_x		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Source(s)													
Corn Receiving Baghouse	SV01	0.86	3.75										
Corn Handling Baghouse	SV02	0.43	1.88										
Corn Bin #1 Spot Filters	SV03	0.03	0.15										
Corn Bin #2 Spot Filters	SV04	0.03	0.15										
Surge Bin Spot Filters	SV05	0.02	0.08										
Hammermilling Baghouse	SV06	0.39	1.69										
Boiler #1	SV09	0.56	2.47	0.04	0.19	3.78	16.56	2.39	10.48	0.41	1.78		
Boiler #2	SV10	0.56	2.47	0.04	0.19	3.78	16.56	2.39	10.48	0.41	1.78		
Boiler #3	SV11	0.56	2.47	0.04	0.19	3.78	16.56	2.39	10.48	0.41	1.78		
Regenerative Thermal Oxidizer	SV12	0.05	0.20	0.00	0.02	0.30	1.31	0.51	2.25	5.06	22.63		
190 Proof Tank										0.01	0.05		
Denaturant Storage Tank										0.18	0.79		
200 Proof Storage Tank #1										0.04	0.19		
200 Proof Storage Tank #2										0.04	0.19		
Denatured Ethanol Tank #1										0.04	0.17		
Denatured Ethanol Tank #2										0.04	0.17		
Loadout Flare	SV13	neg	neg	neg	neg	0.56	2.43	0.93	4.06	0.96	4.20		
Total		3.49	15.31	0.12	0.59	12.19	53.41	8.62	37.75	9.01	39.45		

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton, Boise, ID 83706 For assistance, call the **Air Permit Hotline - 1-877-5PERMIT**	**PERMIT TO CONSTRUCT APPLICATION** Revision 3 4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Pacific Ethanol, Inc
Facility Name:	Pacific Ethanol Magic Valley, LLC
Facility ID No.:	031-00032
Brief Project Description:	Fuel Grade Ethanol Production

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - POINT SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_x		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Source(s)													

Instructions for Form EI-CP1

This form is designed to provide the permit writer and air quality modeler with a summary of the criteria pollutant emissions of each emission unit/point located at the facility. This information may be used by the IDEQ to perform an air quality analysis or to review an air quality analysis submitted with the permit application or requested by the IDEQ.

Please fill in the same company name, facility name, facility ID number, and brief project description as on form CS in the boxes provided. This is useful in case any pages of the application get separated.

1. Provide the name of all emission units at the facility. This name must match names on other submittals to IDEQ and within this application.

2. Provide the identification number for the stack which the emission unit exits.

3. Provide the emission rate in pounds per hour and tons per year for all criteria pollutants emitted by this point source. In this form, emission rates for a point source are the maximum allowable emissions for both short term (pounds per hour) and long term (tons per year). These emission rates are its permitted limits (if any). Otherwise, potential to emit should be shown. Potential to emit is defined as uncontrolled emissions at maximum design or achievable capacity (whichever is higher) and year-round continuous operation (8760 hours per year) if there are no federally enforceable permit limits on the emission point. If the emission point has or will have control equipment or some other proposed permit limitation such as hours of operation or material usage, the control efficiency or proposed permit limit(s) may be used in calculating potential to emit.

NOTE: Attach a separate sheet of paper, or electronic file, to provide additional documentation on the development of the emission rates. Documentation can include emissions factors, throughput, and example calculations.

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline - 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION
Revision 2
4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Pacific Ethanol, Inc
Facility Name:	Pacific Ethanol Magic Valley, LLC
Facility ID No.:	031-00032
Brief Project Description:	Fule Grade Ethanol Production

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - FUGITIVE SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_x		CO		VOC		Lead	
Fugitive Source Name	**Fugitive ID**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**
Fugitive Source(s)													
Truck Traffic	FS01	3.32	14.55										
Grain Handling	FS02	1.47	6.44										
Wetcake Storage	FS03									0.61	2.67		
Equipment Leaks	FS04									0.69	3.02		
Cooling Towers	FS05	0.75	3.29										
Grain Loadout	FS06	0.22	0.95										
Grain Flaking	FS07	0.56	2.46										
Total		6.32	27.69							1.30	5.69		

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton, Boise, ID 83706 For assistance, call the **Air Permit Hotline - 1-877-5PERMIT**	**PERMIT TO CONSTRUCT APPLICATION** Revision 2 4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Pacific Ethanol, Inc
Facility Name:	Pacific Ethanol Magic Valley, LLC
Facility ID No.:	031-00032
Brief Project Description:	Fule Grade Ethanol Production

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - FUGITIVE SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_X		CO		VOC		Lead	
Fugitive Source Name	**Fugitive ID**	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Fugitive Source(s)													

Instructions for Form EI-CP2

This form is designed to provide the permit writer and air quality modeler with a summary of the criteria pollutant emissions of each emission unit/point located at the facility. This information may be used by the IDEQ to perform an air quality analysis or to review an air quality analysis submitted with the permit application or requested by the IDEQ.

Please fill in the same company name, facility name, facility ID number, and brief project description as on form CS in the boxes provided. This is useful in case any pages of the application get separated.

Fugitive emissions are those emissions that cannot reasonably be made to pass through a stack or vent or equivalent opening. Examples include coal piles, unpaved roads, etc. Fugitive emission sources at your plant must be included in this form.

1. Provide the name of all fugitive sources at the facility. This name must match names on other submittals to IDEQ and within this application.

2. Provide the identification number for the fugitive source. This ID number should match ID numbers on other submittals to IDEQ and within this application.

3. Provide the emission rate in pounds per hour and tons per year for all criteria pollutants emitted by this fugitive source. In this form, emission rates for a fugitive source are the maximum allowable emissions for both short term (pounds per hour) and long term (tons per year). These emission rates are its permitted limits (if any). Otherwise, potential to emit should be shown. Potential to emit is defined as uncontrolled emissions at maximum design or achievable capacity (whichever is higher) and year-round continuous operation (8760 hours per year) if there are no federally enforceable permit limits on the emission point. If the emission point has or will have control equipment or some other proposed permit limitation such as hours of operation or material usage, then, the control efficiency or proposed permit limit(s) may be used in calculating potential to emit.

NOTE: Attach a separate sheet of paper, or electronic file, to provide additional documentation on the development of the emission rates. Documentation can include emissions factors, throughput, and example calculations.

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline - 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION
Revision 3
4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Pacific Ethanol, Inc.
Facility Name:	Pacific Ethanol Magic Valley, LLC
Facility ID No.:	031-00032
Brief Project Description:	Fuel Grade Ethanol Production

SUMMARY OF EMISSIONS INCREASE (PROPOSED PTE - PREVIOUSLY MODELED PTE) - POINT SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_x		CO		VOC		Lead	
Emissions units	**Stack ID**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**
Point Source(s)													
Rengenerative Thermal Oxidizer	SV12									0.53	2.32		
Loadout Flare	SV13					0.56	2.43	0.93	4.06	0.96	4.20		
name of the emissions unit3													
name of the emissions unit4													
name of the emissions unit5													
name of the emissions unit6													
name of the emissions unit7													
name of the emissions unit8													
name of the emissions unit9													
name of the emissions unit10													
name of the emissions unit11													
name of the emissions unit12													
name of the emissions unit13													
name of the emissions unit14													
name of the emissions unit15													
name of the emissions unit16													
name of the emissions unit17													
name of the emissions unit18													
name of the emissions unit19													
name of the emissions unit20													
name of the emissions unit21													
(insert more rows as needed)													
Total						0.56	2.43	0.93	4.06	1.49	6.52		

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton, Boise, ID 83706 For assistance, call the **Air Permit Hotline - 1-877-5PERMIT**	**PERMIT TO CONSTRUCT APPLICATION** Revision 3 4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Pacific Ethanol, Inc.
Facility Name:	Pacific Ethanol Magic Valley, LLC
Facility ID No.:	031-00032
Brief Project Description:	Fuel Grade Ethanol Production

SUMMARY OF EMISSIONS INCREASE (PROPOSED PTE - PREVIOUSLY MODELED PTE) - POINT SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_x		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Source(s)													

Instructions for Form EI-CP3

This form is designed to provide the permit writer and air quality modeler with a summary of the change in criteria pollutant emissions of each emission unit/point associated with this permit application. This information may be used by the IDEQ to perform an air quality analysis or to review an air quality analysis submitted with the permit application or requested by the IDEQ.

Please fill in the same company name, facility name, facility ID number, and brief project description as on form CS in the boxes provided. This is useful in case any pages of the application get separated.

1. Provide the name of the emission unit. This name should match names on other submittals to IDEQ and within this application.

2. Provide the identification number for the stack which the emission unit exits.

3. Provide the increase in emissions in pounds per hour and tons per year for all criteria pollutants emitted by this emission unit. In this form, increase in emissions for an emission unit are the proposed PTE - Previously modeled PTE. If the emission point has or will have control equipment or some other proposed permit limitation such as hours of operation or material usage, then, the control efficiency or proposed permit limit(s) may be used in calculating proposed potential to emit.

NOTE: Attach a separate sheet of paper, or electronic file, to provide additional documentation on the development of the emission rates. Documentation can include emissions factors, throughput, and example calculations.

INTERNAL USE ONLY - STATIONARY SOURCE PROGRAM
FEES RECEIVED FROM FACILITY

Date Stamp (Date Received in Program Office)	RECEIVED OCT 0 1 2008 Department of Environmental Quality State Air Program
Facility Name	PACIFIC ETHANOL
Facility Location	BURLEY
Fee Type:	
PTC Application Fee	☑ Amount Received:
PTC Processing Fee	☐ Amount Received:
T2 Processing Fee	☐ Amount Received:
PBR Registration Fee	☐ Amount Received:
Check Number	# 700348
Check Date	9/30/08
Total Amount of Check	$1,000
Signature/Date of Person Receiving	D. Kettmann 10/1/08